

Glossary

Pronunciation Key

a add, map	f fit, half	n nice, tin	p pit, stop	û(r) burn, term
ā ace, rate	g go, log	ng ring, song	r run, poor	yō fuse, few
â(r) care, air	h hope, hate	o odd, hot	s see, pass	v vain, eve
ă palm, father	i it, give	ō open, so	sh sure, rush	w win, away
b bat, rub	ī ice, write	ô order, jaw	t talk, sit	y yet, yearn
ch check, catch	j joy, ledge	oi oil, boy	th thin, both	z zest, muse
d dog, rod	k cool, take	ou pout, now	th this, bathe	zh vision, pleasure
e end, pet	l look, rule	ōō took, full	u up, done	
ē equal, tree	m move, seem	ōō pool, food	û pull, book	

ə the schwa, an unstressed vowel representing the sound spelled *a* in *above*, *e* in *sicken*, *i* in *possible*, *o* in *melon*, *u* in *circus*

Other symbols:

- separates words into syllables
- ˘ indicates stress on a syllable

A

addend [a'dend] **sumando** Any of the numbers that are added in addition

Examples: $2 + 3 = 5$

↑ ↑
addend addend

addition [ə'dish'ən] **suma** The process of finding the total number of items when two or more groups of items are joined; the opposite operation of subtraction

A.M. [ā'em] **a.m.** The time after midnight and before noon (p. 393)

analog clock [an'ə'log klāk] **reloj analógico** A tool for measuring time, in which hands move around a circle to show hours and minutes

Example:



angle [ang'gəl] **ángulo** A shape formed by two rays that share an endpoint (p. 437)

Example:

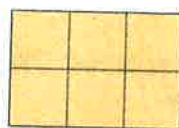


Word History

When the letter *g* is replaced with the letter *k* in the word **angle**, the word becomes **ankle**. Both words come from the same Latin root, *angulus*, which means "a sharp bend."

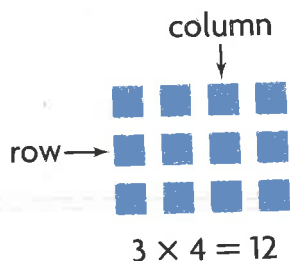
area [âr'ē'ə] **área** The measure of the number of unit squares needed to cover a surface (p. 445)

Example:



Area = 6 square units

array [ə·rā'] **matriz** A set of objects arranged in rows and columns (p. 115)
Example:



Associative Property of Addition [ə·sō'shē·āt·iv prăp'ər·tē əv ə·dish'ən] **propiedad asociativa de la suma** The property that states that you can group addends in different ways and still get the same sum (p. 21)

Example:

$$4 + (2 + 5) = 11$$

$$(4 + 2) + 5 = 11$$

Associative Property of Multiplication [ə·sō'shē·āt·iv prăp'ər·tē əv mul·tə·pli·kā'shən] **propiedad asociativa de la multiplicación** The property that states that when the grouping of factors is changed, the product remains the same (p. 155)

Example:

$$(3 \times 2) \times 4 = 24$$

$$3 \times (2 \times 4) = 24$$

B

bar graph [bār graf] **gráfica de barras** A graph that uses bars to show data (p. 75)
Example:



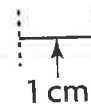
C

capacity [kə·pas'i·tē] **capacidad** The amount a container can hold
Example:

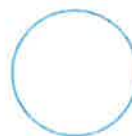
$$1 \text{ liter} = 1,000 \text{ milliliters}$$

cent sign (¢) [sent sīn] **símbolo de centauo**
 A symbol that stands for cent or cents
Example: 53¢

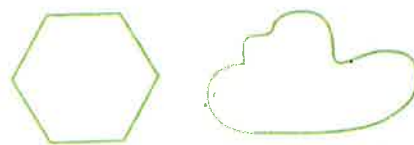
centimeter (cm) [sen'tə·mēt·ər] **centímetro** (cm)
 A metric unit that is used to measure length or distance
Example:



circle [sûr'kəl] **círculo** A round closed plane shape
Example:



closed shape [klōzd shāp] **figura cerrada** A shape that begins and ends at the same point (p. 484)
Examples:



Commutative Property of Addition [kə·myōōt'ə·tiv prăp'ər·tē əv ə·dish'ən] **propiedad conmutativa de la suma**
 The property that states that you can add two or more numbers in any order and get the same sum (p. 6)
Example: $6 + 7 = 13$
 $7 + 6 = 13$

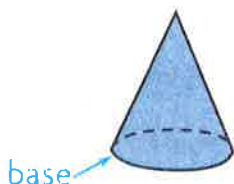
Commutative Property of Multiplication [kə·myōōt'ə·tiv prăp'ər·tē əv mul·tə·pli·kā'shən] **propiedad conmutativa de la multiplicación**
 The property that states that you can multiply two factors in any order and get the same product (p. 120)
Example: $2 \times 4 = 8$
 $4 \times 2 = 8$

compare [kəm·pār'] **comparar** To describe whether numbers are equal to, less than, or greater than each other

compatible numbers [kəm·pat'ə·bəl num'bərz] **números compatibles** Numbers that are easy to compute with mentally (p. 13)

cone [kōn] **cono** A three-dimensional, pointed shape that has a flat, round base

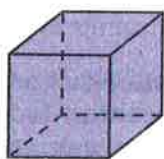
Example:



counting number [kount'ing num'bər] **número natural** A whole number that can be used to count a set of objects (1, 2, 3, 4 . . .)

cube [kyōōb] **cubo** A three-dimensional shape with six square faces of the same size

Example:



cylinder [sil'an·dər] **cilindro** A three-dimensional object that is shaped like a can

Example:



decimal point [des'ə·məɪ point] **punto decimal**

A symbol used to separate dollars from cents in money

Example: \$4.52

↑ decimal point

denominator [dē·nām'ə·nāt·ər] **denominador**

The part of a fraction below the line, which tells how many equal parts there are in the whole or in the group (p. 319)

Example: $\frac{3}{4}$ ← denominator

difference [dif'ər·əns] **diferencia** The answer to a subtraction problem

Example: $6 - 4 = 2$

↑ difference

digital clock [dij'i·təl klāk] **reloj digital**

A clock that shows time to the minute, using digits

Example:



digits [dij'its] **dígitos** The symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9

dime [dīm] **moneda de 10¢** A coin worth 10 cents and with a value equal to that of 10 pennies; 10¢

Example:



Distributive Property [di·trib'yōō·tiv prāp'ər·tē]

propiedad distributiva The property that states that multiplying a sum by a number is the same as multiplying each addend by the number and then adding the products (p. 145)

Example: $5 \times 8 = 5 \times (4 + 4)$

$5 \times 8 = (5 \times 4) + (5 \times 4)$

$5 \times 8 = 20 + 20$

$5 \times 8 = 40$

divide [də·vīd'] **dividir** To separate into equal groups; the opposite operation of multiplication (p. 213)

dividend [div'ə·dend] **dividendo** The number that is to be divided in a division problem (p. 222)

Example: $35 \div 5 = 7$

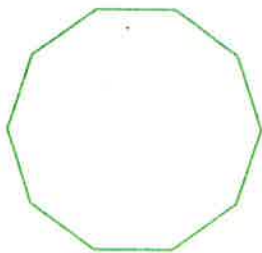
↑ dividend

D

data [dāt'ə] **datos** Information collected about people or things

decagon [dek'ə·gān] **decágono** A polygon with ten sides and ten angles (p. 492)

Example:



division [dəˈvɪʒən] **división** The process of sharing a number of items to find how many groups can be made or how many items will be in a group; the opposite operation of multiplication

divisor [deˈvɪzər] **divisor** The number that divides the dividend (p. 222)

Example: $35 \div 5 = 7$
 \uparrow divisor

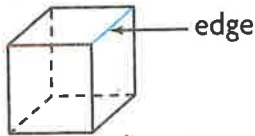
dollar [dāl'ər] **dólar** Paper money worth 100 cents and equal to 100 pennies; \$1.00

Example:

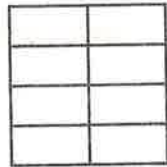


E

edge [ej] **arista** A line segment formed where two faces meet



eighths [ātths] **octavos**



These are eighths (p. 307)

elapsed time [ēˈlapst' tɪm] **tiempo transcurrido**

The time that passes from the start of an activity to the end of that activity (p. 397)

endpoint [end'point] **extremo** The point at either end of a line segment (p. 483)

equal groups [ē'kwəl grōōpz] **grupos iguales**
 Groups that have the same number of objects (p. 97)

equal parts [ē'kwəl pārts] **partes iguales** Parts that are exactly the same size (p. 307)

equal sign (=) [ē'kwəl sɪn] **signo de igualdad**

A symbol used to show that two numbers have the same value

Example: $384 = 384$

equal to (=) [ē'kwəl tōō] **igual a** Having the same value

Example: $4 + 4$ is equal to $3 + 5$.

equation [ēˈkwā'zhən] **ecuación** A number sentence that uses the equal sign to show that two amounts are equal (p. 185)

Examples:

$$3 + 7 = 10$$

$$4 - 1 = 3$$

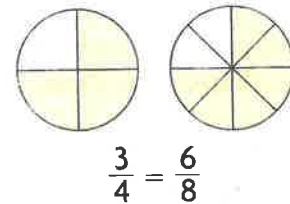
$$6 \times 7 = 42$$

$$8 \div 2 = 4$$

equivalent [ēˈkwiv'əˌlənt] **equivalente** Two or more sets that name the same amount

equivalent fractions [ēˈkwiv'əˌlənt frak'shənz] **fracciones equivalentes** Two or more fractions that name the same amount (p. 373)

Example:



estimate [es'təˌmāt] **verb** **estimar** To find about how many or how much

estimate [es'təˌmit] **noun** **estimación**
 A number close to an exact amount (p. 13)

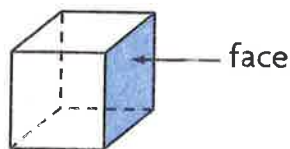
even [ēˈvən] **par** A whole number that has a 0, 2, 4, 6, or 8 in the ones place

expanded form [ekˈspanˈdid fōrm] **forma desarrollada** A way to write numbers by showing the value of each digit
 Example: $721 = 700 + 20 + 1$

experiment [ekˈsperˈəˌmənt] **experimento**
 A test that is done in order to find out something

F

face [fās] **cara** A polygon that is a flat surface of a solid shape



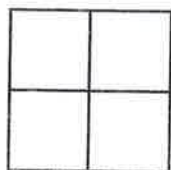
factor [fak'tər] **factor** A number that is multiplied by another number to find a product (p. 102)

Examples: $3 \times 8 = 24$

↑ ↑
factor factor

foot (ft) [fōōt] **pie** A customary unit used to measure length or distance;
1 foot = 12 inches

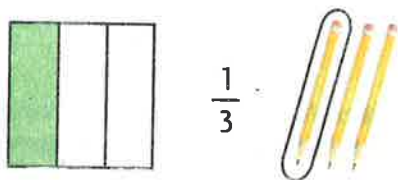
fourths [fôrths] **cuartos**



These are fourths (p. 307)

fraction [frak'shən] **fracción** A number that names part of a whole or part of a group (p. 315)

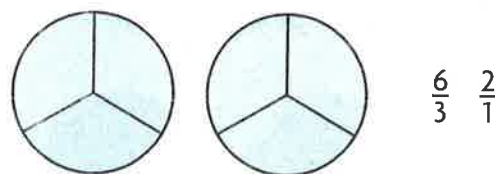
Examples:



fraction greater than 1 [frak'shən grāt'ər than wun]

fracción mayor que 1 A number which has a numerator that is greater than its denominator (p. 330)

Examples:



frequency table [frē'kwən·sē tā'bəl] **tabla de**

frecuencia A table that uses numbers to record data (p. 61)

Example:

Favorite Color	
Color	Number
Blue	10
Green	8
Red	7
Yellow	4

G

gram (g) [gram] **gramo (g)** A metric unit that is used to measure mass;
1 kilogram = 1,000 grams (p. 419)

greater than (>) [grāt'ər than] **mayor que**
A symbol used to compare two numbers when the greater number is given first

Example:

Read $6 > 4$ as "six is greater than four."

Grouping Property of Addition [grōōp'ing prāp'ər·tē əv ə·dish'ən] **propiedad de**

agrupación de la suma See Associative Property of Addition.

Grouping Property of Multiplication [grōōp'ing prāp'ər·tē əv mul·tə·pli·kā'shən] **propiedad de**

agrupación de la multiplicación See Associative Property of Multiplication.

Word History

Often, a **fraction** is a part of a whole that is broken into pieces. *Fraction* comes from the Latin word *frangere*, which means "to break."

H

half dollar [haf dol'ər] **moneda de 50¢**

A coin worth 50 cents and with a value equal to that of 50 pennies; 50¢

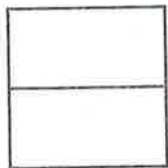
Example:



half hour [haf our] **media hora** 30 minutes

Example: Between 4:00 and 4:30 is one half hour.

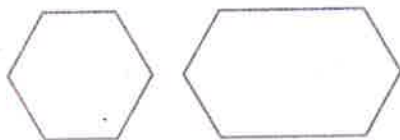
halves [havz] **mitades**



These are halves (p. 307)

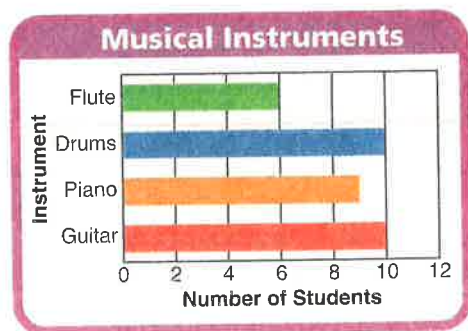
hexagon [hek'sə·gān] **hexágono** A polygon with six sides and six angles (p. 492)

Examples:



horizontal bar graph [hōr·i·zānt'l bār graf] **gráfica de barras horizontales** A bar graph in which the bars go from left to right (p. 76)

Examples:



hour (hr) [our] **hora (h)** A unit used to measure time; in one hour, the hour hand on an analog clock moves from one number to the next; 1 hour = 60 minutes

hour hand [our hand] **horario** The short hand on an analog clock

I

Identity Property of Addition [i·den'tə·tē prāp'ər·tē əv ə·dish'ən] **propiedad de identidad de la suma** The property that states that when you add zero to a number, the result is that number (p. 5)

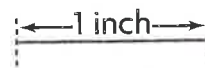
Example: $24 + 0 = 24$

Identity Property of Multiplication [i·den'tə·tē prāp'ər·tē əv mul·tə·pli·kā'shən] **propiedad de identidad de la multiplicación** The property that states that the product of any number and 1 is that number (p. 124)

Examples: $5 \times 1 = 5$
 $1 \times 8 = 8$

inch (in.) [inch] **pulgada (pulg.)** A customary unit used to measure length or distance

Example:



intersecting lines [in·tər·sekt'ing līnz] **líneas secantes** Lines that meet or cross (p. 495)

Example:



inverse operations [in'vûrs əp·ə·rā'shənz] **operaciones inversas** Opposite operations, or operations that undo one another, such as addition and subtraction or multiplication and division (p. 235)

K

key [kē] **clave** The part of a map or graph that explains the symbols (p. 65)

kilogram (kg) [kil'ō·gram] **kilogramo (kg)** A metric unit used to measure mass; 1 kilogram = 1,000 grams (p. 419)

L

length [lengkt] **longitud** The measurement of the distance between two points

less than (<) [les than] **menor que** A symbol used to compare two numbers when the lesser number is given first

Example:

Read $3 < 7$ as "three is less than seven."

line [līn] **línea** A straight path extending in both directions with no endpoints (p. 483)

Example:

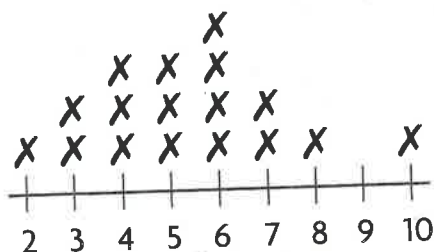


Word History

The word **line** comes from *linen*, a thread spun from the fibers of the flax plant. In early times, thread was held tight to mark a straight line between two points.

line plot [līn plāt] **diagrama de puntos** A graph that records each piece of data on a number line (p. 87)

Example:



**Height of Bean Seedlings
to the Nearest Centimeter**

line segment [līn seg'mənt] **segmento** A part of a line that includes two points, called endpoints, and all of the points between them (p. 483)

Example:



liquid volume [lik'wid vāl'yōōm] **volumen de un líquido** The amount of liquid in a container (p. 415)

liter (L) [lēt'ər] **litro** (L) A metric unit used to measure capacity and liquid volume; 1 liter = 1,000 milliliters (p. 415)

M

mass [mas] **masa** The amount of matter in an object (p. 419)

meter (m) [mēt'ər] **metro** (m) A metric unit used to measure length or distance; 1 meter = 100 centimeters

midnight [mid'nīt] **medianoche** 12:00 at night (p. 393)

milliliter (mL) [mil'i-lēt'ər] **mililitro** (mL) A metric unit used to measure capacity and liquid volume

minute (min) [min'it] **minuto** (min) A unit used to measure short amounts of time; in one minute, the minute hand on an analog clock moves from one mark to the next (p. 389)

minute hand [min'it hand] **minutero** The long hand on an analog clock

multiple [mul'tə-pəl] **múltiplo** A number that is the product of two counting numbers (p. 137)

Examples:

$\begin{array}{r} 6 \\ \times 1 \\ \hline 6 \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline 12 \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline 24 \end{array}$	counting numbers multiples of 6
----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------------	---------------------------------------

multiplication [mul'tə-pli-kā'shən] **multiplicación** The process of finding the total number of items in two or more equal groups; the opposite operation of division

multiply [mul'tə-plī] **multiplicar** To combine equal groups to find how many in all; the opposite operation of division (p. 102)

N

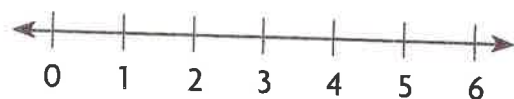
nickel [nik'əl] **moneda de 5¢** A coin worth 5 cents and with a value equal to that of 5 pennies; 5¢

Example:



noon [nōōn] **mediodía** 12:00 in the day (p. 394)

number line [num'bər līn] **recta numérica**
A line on which numbers can be located
Example:



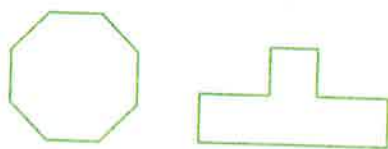
number sentence [num'bər sent'ns] **enunciado numérico** A sentence that includes numbers, operation symbols, and a greater than symbol, a less than symbol, or an equal sign
Example: $5 + 3 = 8$

numerator [nūō'mər-āt-ər] **numerador** The part of a fraction above the line, which tells how many parts are being counted (p. 319)

Example: $\frac{3}{4}$ ← numerator

O

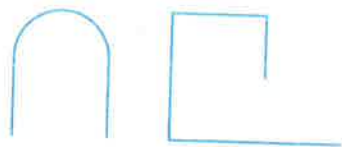
octagon [äk'tə-gän] **octágono** A polygon with eight sides and eight angles (p. 492)
Examples:



odd [od] **impar** A whole number that has a 1, 3, 5, 7, or 9 in the ones place

open shape [ō'pən shāp] **figura abierta** A shape that does not begin and end at the same point (p. 484)

Examples:



order [ōr'dər] **orden** A particular arrangement or placement of numbers or things, one after another

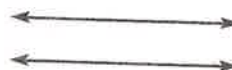
order of operations [ōr'dər əv əp-ə-rā'shənz] **orden de las operaciones** A special set of rules that gives the order in which calculations are done (p. 296)

Order Property of Addition [ōr'dər prāp'ər-tē əv ə-dish'ən] **propiedad de orden de la suma** See Commutative Property of Addition.

Order Property of Multiplication [ōr'dər prāp'ər-tē əv mul-tə-pli-kā'shən] **propiedad de orden de la multiplicación** See Commutative Property of Multiplication.

P

parallel lines [pâr-ə-lel līnz] **líneas paralelas** Lines in the same plane that never cross and are always the same distance apart (p. 495)
Example:

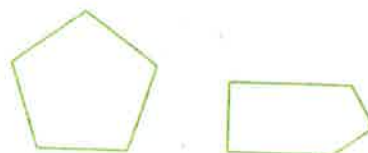


pattern [pat'ərn] **patrón** An ordered set of numbers or objects in which the order helps you predict what will come next (p. 5)
Examples:

2, 4, 6, 8, 10



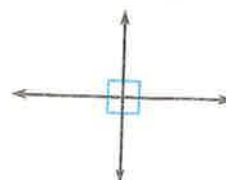
pentagon [pen'tə-gän] **pentágono** A polygon with five sides and five angles (p. 492)
Examples:



perimeter [pə-rim-ə-tər] **perímetro** The distance around a shape (p. 433)
Example:

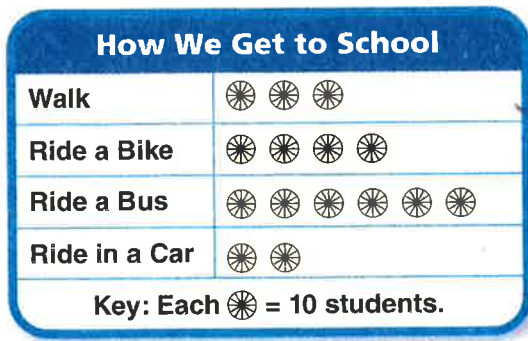


perpendicular lines [pə-rən-dik'yōō-lər līnz] **líneas perpendiculares** Lines that intersect to form right angles (p. 495)
Example:



picture graph [pik'chər graf] **gráfica con dibujos** A graph that uses pictures to show and compare information (p. 65)

Example:

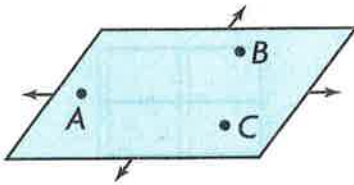


place value [plās val'yōō] **valor posicional**

The value of each digit in a number, based on the location of the digit

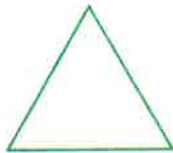
plane [plān] **plano** A flat surface that extends without end in all directions

Example:



plane shape [plān shāp] **figura plana** A shape in a plane that is formed by curves, line segments, or both (p. 483)

Example:

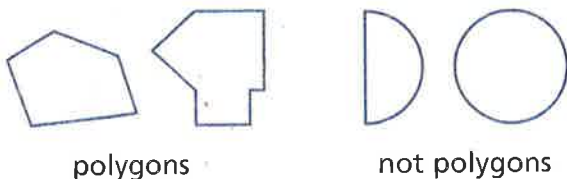


P.M. [pē'em] **p.m.** The time after noon and before midnight (p. 394)

point [point] **punto** An exact position or location (p. 483)

polygon [pāl'i-găn] **polígono** A closed plane shape with straight sides that are line segments (p. 491)

Examples:



Word History

Did you ever think that a **polygon** looks like a bunch of knees that are bent? This is how the term got its name. **Poly-** is from the Greek word *polys*, which means "many." The ending **-gon** is from the Greek word *gony*, which means "knee."

product [präd'əkt] **producto** The answer in a multiplication problem (p. 102)

Example: $3 \times 8 = 24$

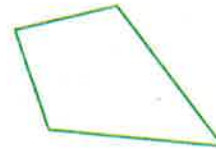
↑ product

Q

quadrilateral [kwäd·ri·lat'ər·əl] **cuadrilátero**

A polygon with four sides and four angles (p. 492)

Example:



quarter [kwôrt'ər] **moneda de 25¢** A coin worth 25 cents and with a value equal to that of 25 pennies; 25¢

Example:



quarter hour [kwôrt'ər our] **cuarto de hora** 15 minutes

Example: Between 4:00 and 4:15 is one quarter hour.

quotient [kwō'shənt] **cociente** The number, not including the remainder, that results from division (p. 222)

Example: $8 \div 4 = 2$

↑ quotient

R

ray [rā] **semirrecta** A part of a line, with one endpoint, that is straight and continues in one direction (p. 483)

Example:



rectangle [rek'tang·gəl] **rectángulo**

A quadrilateral with two pairs of parallel sides, two pairs of sides of equal length, and four right angles (p. 501)

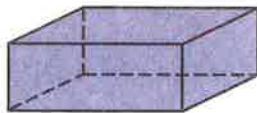
Example:



rectangular prism [rek'tang'gyə·lär priz'əm]

prisma rectangular A three-dimensional shape with six faces that are all rectangles

Example:



regroup [rē·grōöp'] **reagrupar** To exchange amounts of equal value to rename a number

Example: $5 + 8 = 13$ ones or 1 ten 3 ones

related facts [ri·lāt'id fakts] **operaciones**

relacionadas A set of related addition and subtraction, or multiplication and division, number sentences (p. 239)

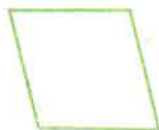
Examples: $4 \times 7 = 28$ $28 \div 4 = 7$
 $7 \times 4 = 28$ $28 \div 7 = 4$

remainder [ri·mān'dər] **residuo** The amount left over when a number cannot be divided evenly

results [ri·zults'] **resultados** The answers from a survey

rhombus [rām'bəs] **rombo** A quadrilateral with two pairs of parallel sides and four sides of equal length (p. 501)

Example:



right angle [rit ang'gəl] **ángulo recto** An angle that forms a square corner (p. 487)

Example:



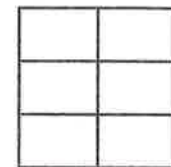
round [raund] **redondear** To replace a number with another number that tells about how many or how much (p. 9)

S

scale [skāl] **escala** The numbers placed at fixed distances on a graph to help label the graph (p. 75)

side [sīd] **lado** A straight line segment in a polygon (p. 491)

sixths [siksths] **sextos**



These are sixths (p. 307)

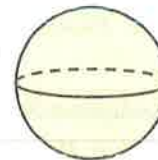
skip count [skip kount] **contar salteado** A pattern of counting forward or backward (p. 83)

Example: 5, 10, 15, 20, 25, 30, . . .

solid shape [sā'lid shāp] **cuerpo geométrico** See three-dimensional shape.

sphere [sfir] **esfera** A three-dimensional shape that has the shape of a round ball

Example:



square [skwâr] **cuadrado** A quadrilateral with two pairs of parallel sides, four sides of equal length, and four right angles (p. 501)

Example:



square unit [skwâr yôô'nit] **unidad cuadrada**

A unit used to measure area such as square foot, square meter, and so on (p. 445)

standard form [stan'dærd fôrm] **forma normal**

A way to write numbers by using the digits 0–9, with each digit having a place value

Example: 345 ← standard form

subtraction [səb•trak'shən] **resta** The process of finding how many are left when a number of items are taken away from a group of items; the process of finding the difference when two groups are compared; the opposite operation of addition

sum [sum] **suma o total** The answer to an addition problem

Example: $6 + 4 = 10$

↑
sum

survey [sûr'vā] **encuesta** A method of gathering information

T

tally table [tal'ē tā'bəl] **tabla de conteo** A table that uses tally marks to record data

Example:

Favorite Sport	
Sport	Tally
Soccer	
Baseball	
Football	
Basketball	

thirds [thûrdz] **tercios**

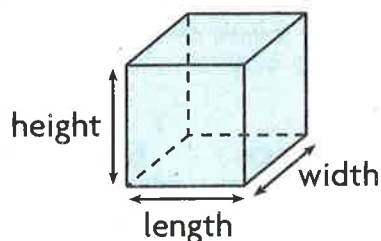


These are thirds (p. 307)

three-dimensional shape [thrē dā•men'shə•nəl shāp]

figura tridimensional A shape that has length, width, and height

Example:



time line [tīm līn] **línea cronológica**

A drawing that shows when and in what order events took place

trapezoid [trap'i•zoid] **trapecio**

A quadrilateral with exactly one pair of parallel sides (p. 501)

Example:



triangle [tri'ang•gəl] **triángulo** A polygon with three sides and three angles (p. 492)

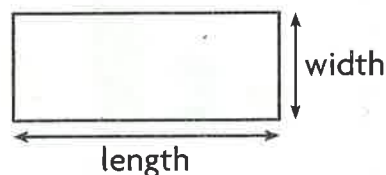
Examples:



two-dimensional shape [tōō dā•men'shə•nəl shāp]

figura bidimensional A shape that has only length and width (p. 484)

Example:



U

unit fraction [yôô'nit frak'shən] **fracción unitaria**

A fraction that has 1 as its top number, or numerator (p. 315)

Examples: $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$

unit square [yôô'nit skwâr] **caudrado de una unidad**

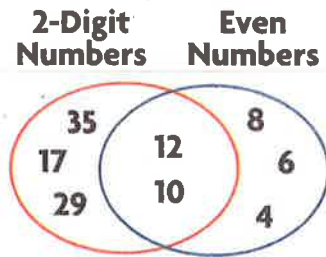
A square with a side length of 1 unit, used to measure area (p. 445)

V

Venn diagram [ven dī'ə·gram] **diagrama de Venn**

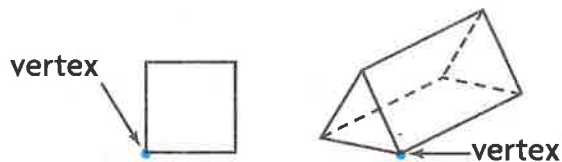
A diagram that shows relationships among sets of things (p. 513)

Example:



vertex [vûr'teks] **vértice** The point at which two rays of an angle or two (or more) line segments meet in a plane shape or where three or more edges meet in a solid shape (p. 487)

Examples:



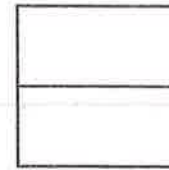
vertical bar graph [vûr'ti·kæl bār graf] **gráfica de barras verticales** A bar graph in which the bars go up from bottom to top (p. 76)



W

whole [hōl] **entero** All of the parts of a shape or group (p. 307)

Example:



$$\frac{2}{2} = 1$$

This is one whole.

whole number [hōl num'bər] **número entero**

One of the numbers 0, 1, 2, 3, 4, . . .

The set of whole numbers goes on without end

word form [wûrd fôrm] **en palabras** A way to write numbers by using words

Example: The word form of 212 is two hundred twelve.

Z

Zero Property of Multiplication [zē'rō prăp'ər·tē əv mul·tə·pli·kā'shən] **propiedad del cero de la multiplicación** The property that states that the product of zero and any number is zero (p. 124)

Example: $0 \times 6 = 0$